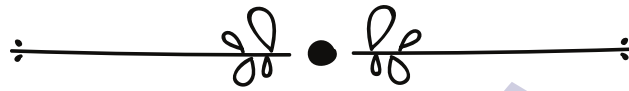


BIOHACK NOTES



BIOTECHNOLOGY AND ITS APPLICATIONS

- BASED ON ACTIVE RECALL AND SPACED REPETITION
- TARGET 360/360 IN NEET BIOLOGY & 100/100 IN BOARDS!



PARTH GOYAL





• BIOTECHNOLOGICAL APPLICATIONS IN AGRICULTURE

1. Green Revolution doubled/tripled the food supply.
2. Green Revolution was enough to feed the growing human population. T/F
3. Genetic Modification helps to reduce post harvest loss. T/F
4. Golden Rice is Vitamin ____ enriched rice. (NEET)
5. Bt toxin is produced by a bacterium called _____. (NEET)
6. Bt tomato and Bt soybean are also made. T/F
7. Mosquitoes are ex of Coleopterans/dipterans.
8. Ex. of lepidopterans - (2) (NEET)
9. Ex. of coleopterans - (1)
10. Ex. of dipterans - (2)
11. Toxin is converted from inactive to active form in insect due to - (NEET)
12. The activated toxin binds to foregut/midgut/hindgut epithelial cells. (NEET)
13. Most Bt toxins are insect group specific. T/F
14. The toxin is coded by a gene named _____
15. The "cry" name is given because -
16. Proteins of _____ and _____ genes control cotton bollworms. (NEET)
17. Protein of _____ gene controls corn borers. (NEET)
18. A nematode _____ infects the roots of tobacco plants. (NEET)
19. RNAi takes place in all prokaryotes/eukaryotes.
20. RNAi function in normal cells -
21. In this a specific mRNA is silenced due to complementary ssRNA/dsRNA. (NEET)
22. Mobile genetic elements are called _____
23. The source of complementary RNA can be from - (2)
24. Nematode specific genes were introduced through _____





• BIOTECHNOLOGICAL APPLICATIONS IN MEDICINE

25. About ____ (no.) recombinant therapeutics have been approved for human use.
26. In India, ____ (no.) these are presently marketed.
27. Why is insulin not administered orally to diabetes patients ?
28. Insulin earlier was extracted from pancreas of _____ and _____ which also caused _____
29. Insulin chains are linked together by _____ (NEET)
30. C peptide is joined to both A and B in pro-insulin. T/F
31. In year _____, a British/American company named _____ synthesized insulin using bacteria _____
32. First clinical gene therapy was given in year ____ to a ____-year old boy/girl with __ deficiency. (NEET)
33. The disorder was caused due to -
34. The enzyme is crucial for _____ system to function.
35. Gene targeting involves _____
36. In patients, functional ADA cDNA is introduced in _____ using _____ vector.
37. ELISA is based on the principle of -
38. Over ____% of all transgenic animals are mice.
39. Transgenic models of which human diseases exist ? (4)
40. Alzheimer's disease is caused due to -
41. _____ is used to treat emphysema. (NEET)
42. In year _____, first transgenic cow named _____, produced human protein enriched milk.
43. The milk had ____ grams of protein per litre and it contained human protein _____
44. Polio vaccine safety has been tested on _____
45. GEAC full form - (NEET)
46. There are estimated ____ lakh varieties of rice in India alone.
47. ____ no. of documented varieties of basmati are grown in India.
48. In year _____, an British/American company got patent right on Basmati through _____ (NEET)
49. Indian Parliament has passed first/second amendment of the _____ which takes issue like biopiracy into consideration.



BIOTECHNOLOGY AND ITS APPLICATIONS



PARTH GOYAL



ANSWERS

• BIOTECHNOLOGICAL APPLICATIONS IN AGRICULTURE

1. Tripled
2. F
3. T
4. A
5. *Bacillus thuringiensis*
6. T
7. Dipterans
8. Tobacco budworm, armyworm
9. Beetles
10. Flies, mosquitoes
11. Alkaline pH of gut which solubilise the crystal
12. Midgut
13. T
14. Cry
15. The protein formed by this gene is "crystalline"
16. cryIAc, cryIIAb
17. cryIAb
18. *Meloidogyne incognita*
19. Eukaryotes
20. Cellular defense
21. dsRNA
22. Transposons
23. infection by viruses having RNA genomes or mobile genetic elements (transposons) that replicate via an RNA intermediate
24. *Agrobacterium* vectors

• BIOTECHNOLOGICAL APPLICATIONS IN MEDICINE

25. 30
26. 12
27. Because till will then get digested by our digestive enzymes
28. Cattle and pig, allergy
29. Disulphide bridges
30. T
31. 1983, American, Eli Lilly, *E. coli*.
32. 1990, 4, girl, ADA
33. Deletion of the gene for adenosine deaminase
34. Immune
35. Gene amplification (given in summary)
36. Lymphocytes, retroviral
37. Antigen-antibody reaction
38. 95
39. cancer, cystic fibrosis, rheumatoid arthritis and Alzheimer's
40. Low acetylcholine
41. Alpha-1-antitrypsin
42. 1997, Rosie
43. 2.4, alpha-lactalbumin
44. Transgenic mice
45. Genetic Engineering Approval Committee
46. 2
47. 27
48. 1997, American, US Patent and Trademark Office
49. Second, Indian Patents Bill

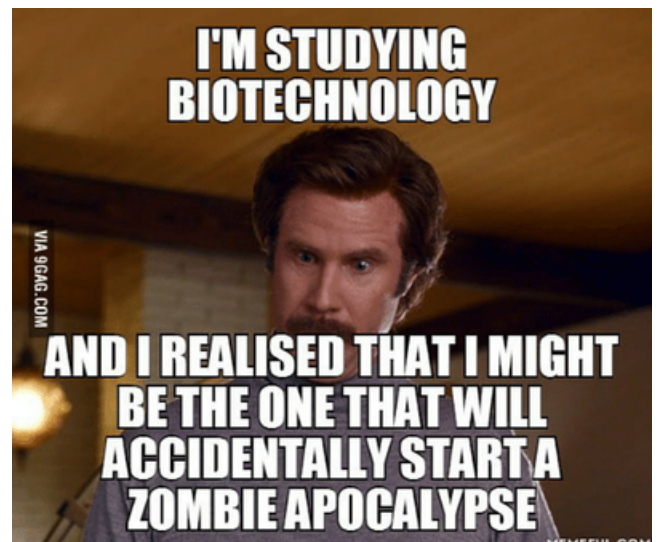




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*SCAN AND DONATE US SO THAT WE
CAN CREATE MORE SUCH QUALITY
CONTENT FOR YOU!*



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